

Management Committee Meeting Summary

January 30, 2018 9:30 am – 12:30 pm Location: The Nature Conservancy 99 Bedford Street, Boston

Attendees:

Management Committee

Julia Blatt (Massachusetts River Alliance [MRA])

Todd Callaghan (MA Office of Coastal Zone Management [CZM])

Joe Cosgrove (Merrimack Valley Planning Commission [MVPC])

David Goldstein (Department of Transportation [MassDOT])

Tay Evans (Division of Marine Fisheries [DMF])

Andrew Gottlieb (Association to Preserve Cape Cod [APCC])

Steve Kirk (The Nature Conservancy [TNC])

Regina Lyons (U.S. Environmental Protection Agency [EPA])

Becca Newhall (National Oceanographic and Atmospheric Administration [NOAA])

Julie Simpson, (MIT Sea Grant)

Kristin Uiterwyk, Chair (Urban Harbors Institute [UHI])

Colin Van Dyke, Vice Chair (Anderson-Krieger)

Samantha Woods (North and South Rivers Watershed Association [NSRWA])

Coordinators and Staff

Pam DiBona (MassBays, Executive Director)

Prassede Vella (MassBays, Staff Scientist)

Sara Grady (NSRWA, South Shore Regional Coordinator)

Torrie Hanley (NU, Metro Boston Regional Coordinator)

Jo Ann Muramoto (APCC, Cape Cod Regional Coordinator)

Peter Phippen (MVPC, Upper North Shore Regional Coordinator)

Barbara Warren (SSCW, Lower North Shore regional Coordinator)

Margherita Prvor (EPA, U.S. Environmental Protection Agency)

Guest speaker

Tim Dexter, MassDOT

Welcome

Committee Chair Kristin Uiterwyk opened the meeting and introduced Torrie Hanley, the new Metro Boston regional Coordinator from Northeastern University. Kristin then reviewed the agenda and handed over to Pam DiBona.

Presentation of the CCMP

Pam DiBona walked the group through the Comprehensive Conservation and Management Plan (CCMP) "Blueprint for the Bays" submitted to EPA Region 1 for review. Attendees received hard copies of the document at the meeting; the full document and appendices are available on MassBays' website [LINK]. It includes background on the National Estuary Program and the purpose of the CCMP, a summary of MassBays' history, a comprehensive overview of the physical characteristics, habitats, and investigations in the Bays, and finally a detailed description of MassBays' goals, strategies, and actions for the next 10 years. Pam pointed out that at the time of the original CCMP (1996), and even the 2003 CCMP Update, conditions were very different from currently. Colin Van Dyke noted that the Management Committee provided significant input and guidance to staff to make sure the final document would be a useful and

readable document. Both the Management Committee and Local Governance Committees' input ensured the revised document reflects current issues and future needs.

Margherita Pryor suggested that MassBays develop some "asks" of EPA, as well as CZM and other agencies and organizations represented on the Management Committee. While MassBays specifically scoped the CCMP to be accomplished with allocations from the National Estuary Program, she pointed out that efforts by other agencies can and should be considered and documented as contributions toward meeting the CCMP goals. Pam pointed out, as an example, that DEP has said they would point to projects contributing to the CCMP as priorities for funding through the §319 (stormwater management) grant program. Margherita also mentioned the investment that EPA's Office of Science and Technology and Office of Research and Development have made to date in helping MassBays advance its efforts to set out targets for conditions in the estuaries; we should continue to request that type of assistance.

Margherita and Regina Lyons described the next steps: Region 1 staff will review the document, and circulate it to EPA Headquarters staff in Washington for concurrence (not approval, as the responsibility for that rests with the Region). Regina asked at what level MassBays would seek sign-off on the CCMP within the state. The first CCMP was signed by the Governor; the 2003 Update by the Environmental Secretary. This launched some discussion, prompted by Andrew Gottlieb, about the importance of buyin from the Commonwealth on MassBays' plans. Pam reported that CZM had not reviewed the document yet, but had indicated they trust the process used to develop the final product. He asserted that investment by the state will be critical to realizing the scope of the plan. In response to Pam's suggestion that we might seek sign-off from the EEA Secretary, he pointed out that it is late in the process to bring the Secretary to the table, especially without stronger support from CZM. He asked all of the Committee members to consider weighing in to raise the profile of what is being proposed in the CCMP, to increase the potential for new and significant funding. Julia Blatt pointed out that the Governor and Secretary have both demonstrated commitment to helping municipalities; we should highlight those components of the CCMP. Regina said she would check in with CZM's Acting Director Lisa Engler to reestablish the agency's commitment to MassBays.

The group also discussed rollout plans for the CCMP. What types of documents and outreach materials would be developed? Pam said that any rollout would be after EPA approval, and the scope of that effort will depend on communications goals. There are many examples from other NEPs of effective outreach materials that target specific audiences for the CCMP, e.g. Piscataqua Region Estuary Partnership and Casco Bay Estuary Partnership. [add links] Todd Callaghan suggested that we might be able to team up with/obtain funding from Massachusetts Environmental Trust or DEP's 319 program to fund outreach materials. Pam said she would like to link the rollout to a MassBays Symposium, which would be another opportunity to partner with EEA agencies. Regina said an official signing would be a good addition to that type of event.

Projects and potential partnerships: a report from the Highway Division *Tim Dexter, Department of Transportation*

Tim Dexter, Fish and Wildlife Supervisor from MassDOT Highway Division, provided a deep-dive into the environmental conservation and protection programs underway. His slides are available at this link. The highlighted programs are non-regulatory, and he stated his hope that new partnerships and collaboration might be generated with and through MassBays. Projects and programs include:

- ISHMCAP expanding beyond Boston area to state-wide analysis of climate vulnerability
- Data-gathering tools to document storm damage, repetitive flooding, wildlife collisions.
- A mapping product, MAPIT that compile locations of endangered species, tidal restrictions, and other components to be considered around road and construction projects.

- Training programs for local highway departments (through Bay State Roads[link]), e.g., Rivers and Roads modeled after a program developed in Vermont post-Hurricane Irene.
- Off-the-shelf designs for bridge upgrades for use by towns, to facilitate channel widening projects.
- Multiple wildlife supports, to aid animal passage, increase nesting opportunities for threatened birds, and improve fish passage.

Management Committee Member Updates

<u>Urban Harbors Institute</u>: (1) UHI is conducting a course for 100 students and asked Committee members to think of projects in relation to Earth Day. Students who participate receive credit. (2) UHI has been contracted by MassBays to research and examine historical data related to the EDA to help in the development of a BCG framework for MassBays. (3) UHI is supporting Paul Kirschen and Ellen Douglas to develop a climate change impact report for MAPC.

<u>U.S. Environmental Protection Agency</u>: (1) Work is still underway on the \$1 million competitive grant. (2) Budget for NEPs (without new appropriations) will stay level at \$600k (one full year of continuing resolution). (2) EPA Region 1's administrator has been confirmed for a new position at EPA Headquarters. Deb Szaro is Acting Administrator for Region 1. (3) The ANEP Directors meeting in DC scheduled for March 12-14 will take place as scheduled, even in the event of another government shutdown.

<u>Division of Marine Fisheries</u>: (1) DMF is involved in offshore wind review in particular related to fisheries. (2) DMF conducted a winter flounder study in Boston Harbor related to mitigation from the HEEC cable to Deer Island. (3) DMF continues with multiyear planting of eelgrass as part of restoration efforts in West Falmouth (test plot sites). (4) DMF is completing its report on conservation mooring monitoring and revising recommendations.

<u>Massachusetts Rivers Alliance</u>: (1) MRA is supporting the Bill on public notification of sewage discharge into freshwater bodies. (2) MRA is also supporting the Bill on drought to allow communities to requite water conservation.

<u>Colin for Zoo New England</u>: (1) There is a merger of Zoo New England with Grassroots Wildlife Conservation and contracts received from Mass Wildlife to expand the conservation footprint of the zoos.

<u>National Oceanographic and Atmospheric Administration</u>: The partial government shutdown impacted progress of several projects but efforts are underway to catch up.

<u>Association to Preserve Cape Cod</u>: (1) Passage of new state law expanding the state hotel/motel tax to home stays created a new Cape Cod and Island Water Protection Trust Fund supported by the new 2.75% surtax for overnight stays in Barnstable County. This will bring in an estimated \$20 million/yr which will cover about 25% cost on nutrient management on Cape Cod. Nantucket and Martha's Vineyard may opt in but will have to petition the DEP for entry into the Trust.

Office of Coastal Zone Management: A 2.5 year contract has been signed for the following (1) new shoreline change survey in Cape Cod Bay; (2) model sediment transportation in Sandwich and East Dennis; and (3) seafloor mapping in southern Cape Cod Bay. Work to start spring 2019.

<u>The Nature Conservancy</u>: In January 2019 TNC, Woods Hole Sea Grant and EEA Secretary launched a Massachusetts Shellfish Initiative. [LINK to website]. This is a stakeholder driven effort to develop recommendations for management changes over the next 12-18 months.

<u>MIT Sea Grant</u>: Spring 2019 courses are underway and looking for opportunities for individuals or teams to conduct projects with partners. Duration 14 wks. Topics of interest: water, climate change and health. Contact Julie Simpson (<u>simpsonj@mit.edu</u>)

Meeting adjourned at 12:30 pm.

Attachment 1. Staff Updates

Regional Coordinators

Regional updates are organized according to the seven action areas of the implementation workplan:

- 1. Gathering data on conditions and trends (DATA)
- 2. Reducing stormwater discharge volumes and pollutant loadings (SW)
- 3. Reducing contamination from wastewater (WW)
- 4. Adapting to/mitigating impacts of climate change (CC)
- 5. Removing barriers to streamflow and tidal flushing (SF)
- 6. Managing invasive species (IS)
- 7. Conducting education and outreach (E&O)

Upper North Shore (Peter Phippen, Regional Coordinator)

• Gather data on conditions and trends (DATA)

- <u>Eelgrass Restoration</u>: In anticipation of restoration efforts in 2019 several potential pilot sites
 were investigated. The most promising site is located at the tip of Nelson's Island in the Parker
 River National Wildlife Refuge portion of Plum Island Sound. *Ruppia maritima* was observed
 growing in the mudflats which is a positive sign that *Zostera marina* may survive as well.
- Mussel/Oyster Project: Working with MA Division of Marine Fisheries a preliminary plan has been developed to lay the foundation for a potential living shoreline mussel reef. The first step in this effort is to determine suitable water quality through monitoring water quality at existing mussel bed sites. MVPC purchased monitoring equipment (pH, DO, conductance, salinity, light) which was deployed in early November. The equipment was retrieved after approximately six weeks in the water (before winter ice) and will be re-deployed in March 2019.
- Microplastics Project: Working with a subcontractor, Seaside Sustainability (Cape Ann), four sites
 were sampled in Fall 2018, primarily in the Annisquam River and outside in the estuary.
 Sampling will continue in the spring. Currently the first few samples are being processed at
 Endicott College.

• Climate change (CC)

- O Dredging and Thin Layer Deposition: As a member of the Northeast Coastal Coalition, MVPC was tasked to investigate the viability of the upper north shore region to purchase a dredge for area channels as well as potential future TLD activities. MVPC secured a contract with the Woods Hole Group to that end. The contract is underway and kickoff meeting with stakeholders is scheduled.
- NFWF Grant Proposal: MVPC spearheaded a NOAA/NFWF grant proposal to improve the resiliency of the Great Marsh. Through National Wildlife Federation, the team was awarded \$1.2M for invasive plant management, eelgrass restoration, and marsh drainage projects. The team attended a press conference. Grant fund preparation activities include coordination with CZM, interviews for a project technician position, and additional permit review.

• Manage invasive species

Invasive Plant Mapping and Control: (1) Working with the Town of Newbury and Boston University, MVPC mapped vegetation type, volume, and height at three cross-marsh transects for input into a marsh hydrology model. The model will be used to determine the impact of marsh vegetation type at mitigating wave energy during coastal storm events. (20 Green Crab Monitoring: Monitoring was performed in Essex Bay at the prescribed locations in October. Green crab populations were unexpectedly high for this period, with at over 2,000 crabs collected from 11 traps. Data were presented at the Green Crab Working Group meeting in November.

• Education and outreach (E&O)

Presentations included: ECAN Annual Conference and Saltmarsh Working Group, Great Marsh Symposium, Green Crab Working Group, North East Coastal Coalition. Events attended: Merrimack River Watershed Council Annual Meeting, PIE Rivers Annual, Steering Committee, &Municipal Committee, Meeting Keeping Water Clean (Greenscapes) West New Newbury/Essex, Coastal Science Workshop, Green Crab Softshell Production Meeting, MAPC North Shore Task Force LID/MS4

Lower North Shore (Barbara Warren, Regional Coordinator)

• Gather data on conditions and trends (DATA)

 Quantifying Phytoplankton and Turbidity in Salem Harbor: The RC began planning the expert solicitation meeting for March with Brad Hubeny from Salem State University.

• Climate change (CC)

Municipal Vulnerability Preparedness: (1) Manchester MVP Action Grant Implementation: Attended charrette on the Sawmill Brook Restoration, tide gate removal and bridge replacement Rt. 127 downtown. (2) Marblehead MVP Action Grant Possibilities: Attended MVP Core Team meeting to discuss possible action projects; working with planner and town administrator on grant possibilities. (3) Beverly MVP Planning Implementation: MVP Process Planning ongoing with BSC Group and Core Team. (4) Danvers: Technical assistance meeting with town staff to prepare MVP Planning application.

Reduce stormwater discharge (SW)

- Implement low impact development: (1) The RC created and disseminated outreach information and materials to 23 Greenscapes member communities: new rain garden brochure and monthly social media posts on proper fall leave practices, ice removal options, what not to flush. (2) RC submitted a DEP MS4 grant for revised Greenscapes Guide and online state map with LID implementation sites "hotspots" and 3 LID videos. (3) Greenscapes Presentations January 17, at Peabody Institute Library, Danvers for MAPC's North Shore Taskforce meeting. Barbara Warren presented "Mainstreaming LID Through MS4 Ordinances". Fred Civian, DEP Stormwater Coordinator, spoke about "Tips for Getting LID Into Your Local Ordinances". Within the next 2 years, MS4 municipalities need to develop or modify ordinances or other regulatory mechanisms to include Low Impact Development (LID) into site planning and design strategies to the maximum extent possible. Within 4 years, municipalities will need to report on how local regulations, at a minimum, are making practices such as green roofs, LID infiltration practices and rainwater harvesting possible. Also by year 4, every MS4 municipality will need to consider how to reduce impervious surfaces on municipal properties through modifications or retrofits that the reduce stormwater runoff.
- <u>Clean Beaches and Streams Program</u>: Finished bacterial sampling and collection for DNA analysis
 waiting for EPA report. Results from summer sampling bacterial levels at outfalls and streams published on SSCW website

• Education and outreach (E&O)

- Held 2 lectures at Beverly Library on Climate Change:
- o "In the Mud" ocean and coastal acidification and citizen science, October 11 (Barbara Warren)
- o "Expedition to Antarctica" scuba diving in Antarctica and climate change. November 8 (Michael Carvalho)
- "Coastal Resilience in Salem" climate change and projects December 6, Barbara Warren presented and held a discussion with 30 attendees
- Science Panel for Essex county Greenbelt's Land and Water Confluence Lecture series, January
 24.2019 in Newburyport, 35 attendees
- o "Coastal Resilience in Salem Sound" Underwater in Salem Sound lecture January 27 by Barbara Warren at Marblehead's Abbot Library

Metro Boston (Jon Grabowski, interim Regional Coordinator)

• Gather data on conditions and trends (DATA)

- o Boston Harbor Habitat Atlas: In the process of identifying stakeholder groups to review; we anticipate reviewing it during Q3 and releasing it in Q4
- EDA 2.0 identified modifications that would strengthen Northeastern's portion of the work and are in the process of making the changes to the data that will be used.

Education and outreach (E&O)

- Boston Harbor Ecosystem Network: (1) Meeting held at the New England Aquarium on 11/6
 attended by 33 people; heard presentations about the Aquarium's vision for connecting the
 blueway to the greenway and the National Park Service's research in the Boston Harbor Islands,
 and solicited feedback on the CCMP.
- Invasive species colleague field trip on 9/12 attended by 16 people on Rowes Wharf in Boston led by Christina Kennedy and Adrienne Pappal from MA CZM
- Steering Committee met on 9/13 and 1/16, discussed hiring a new MassBays Regional
 Coordinator, plans for BHEN meetings, future field trips, the possibility of a second science

symposium with potential partners, and the role and composition of the steering committee

In the process of planning our next meeting in May – steering committee agreed on a theme, and moving forward with setting date and venue as well as soliciting speakers

Other events

- Assisted in organizing and hosting the 2018 Ocean Literacy Summit, which was held at UMass Boston
- o Organized Science Cafe on 11/5 on mollusks
- o Helping organize the High School Marine Science Symposia, which will occur on March 7 and 13
- Helped publicize several events in and around Boston, including the Massachusetts Bay Outfall Workshop, Next Gen Explorers Expo, NEOSEC Ocean Literacy Summit, and Boston Harbor & Islands: Coastal Adaptation Presentation Webinar

South Shore (Sara Grady, Regional Coordinator)

• Gather data on conditions and trends (DATA)

- <u>Eelgrass loss in Duxbury/Kingston/Plymouth</u>: The RC participated in analyses of the data (photos) collected. RC also reviewed the final report and protocol.
- o <u>Anadromous fish run monitoring</u>: In October 2018, the RC organized, QA/QC, analyzed, and submitted 2018 herring data
- Shellfish survey: Underwater monitoring was conducted by the RC to document the status of mussel beds in the North River. The RC wrote an article on mussels and interconnected estuarine issues in NSRWA newsletter.

Reduce stormwater discharge (SW)

Riverwatch: The RC managed Riverwatch monitoring and began analyzing data

Barriers to streamflow and tidal flushing (SF)

Dam removal: (1) The RC coordinated historical and planning discussions for dam removal (Peterson Pond) and prepared for application to NOAA for funding. (2) South River: The RC reviewed and managed scopes for Temple Street and Veterans Memorial Park work and reviewed additional scopes of work and prepared applications to NOAA for funding.

• Manage invasive species (IS)

- o MIMIC marine invasive species monitoring: The RC submitted data to CZM.
- o Green Crab Project: The RC presented data at the NSRWA Annual meeting.

• Education and outreach (E&O)

o Recorded two additional podcast episodes ("Sea Monsters", "Town Brook Restoration")

Cape Cod (Jo Ann Muramoto, Regional Coordinator)

• Gather data on conditions and trends (DATA)

- State of the Waters: Cape Cod: APCC tested the Buzzards Bay Eutrophic Index as a potential method for scoring coastal waters and researched the Carlson Trophic Index as a method of scoring pond water quality. The Advisory Committee supported both. The Buzzards Bay Eutrophic Index has been used by the Buzzards Bay NEP and Buzzards Bay Coalition since 1992, and it is also used by the Center for Coastal Studies, the Pleasant Bay Alliance, and Town of Chatham. The Carlson Trophic Index is similar and measures phytoplankton productivity in ponds and lakes and was used to characterize pond water quality in the 208 Water Quality Plan for Cape Cod. Next steps are to collect water quality data and apply the report card methods. The Buzzards Bay Eutrophic Index should be compatible with MassBays' planned Ecohealth Report Cards.
- <u>Diadromous fish run monitoring</u>: The 2019 count season is approaching, and groups have already contacted the RC to coordinate on training dates.
- <u>Cyanobacteria monitoring</u>: : Planning is underway for a spring training workshop and summer monitoring. Proposals were submitted. A conference call with DPH is planned for early February to gain insight into DPH jurisdiction and process for pond closures.

• Reduce stormwater discharge (SW)

<u>Cape Cod Stormwater Coalition</u>: The group met three times, to learn about new stormwater utilities adopted in MA in 2018 and to consider proposed draft bylaws, policies and BMPs suited to Cape Cod conditions and water quality.

• Climate change (CC)

Model conservation bylaw for climate change adaptation for town of Wellfleet: APCC prepared a draft bylaw for Wellfleet that addresses climate change adaptation and prepared an annotated literature review of examples of climate change adaptation regulations and policies. A proposed Boston ordinance for wetlands protection and climate change adaptation has much useful language. The conservation agent wants to move ahead on working with APCC to develop regulations. There is apparently interest from other Outer Cape towns. The RC gave a presentation to the Cape Cod Conservation Agents Network.

• Education and outreach (E&O)

o <u>6th Annual Cape Cod Coastal Conference</u>: The major themes were water quality and coastal resilience. The RC moderated a session on cyanobacteria monitoring and a stormwater retrofit project in the Three Bays region of Barnstable.

Pam DiBona, Executive Director

Program Management & Fundraising

- o Participated in candidate interviews for Metro Boston Regional Coordinator to be based at Northeastern University's Marine Science Center.
- December 29, received a copy of the new textbook published by Routledge and the American Society for Public Administration, "Making Collaboratives Work: How Complex Organizational Partnerships Succeed." I co-authored the only case study in the book, included as Chapter 4: "The New England Ocean Science Education Collaborative (NEOSEC)."
- o January 15, attended NEOSEC planning meeting to develop potential joint funding opportunities.
- January 16, met with MSC and the new Metro Boston RC to scope out remaining work for this year's contract.
- January 16, met with Casco Bay and Piscataqua Region Estuary Program Directors to explore potential joint funding proposals.

CCMP

- Attended the Boston Harbor Ecosystem Network meeting (November 8) and South Shore Local Governance Committee meeting (November 20) to solicit input to the CCMP.
- December 19, hosted a Special Management Committee Meeting to review the draft CCMP prior to finalizing for EPA review.
- January 2, submitted draft CCMP to CZM, Chair, and Vice Chair for review and comment.
- o January 28, submitted draft final CCMP to EPA Region 1 for review.

Citizen Monitoring

- Drafted and finalized a Scope of Work for Eastern Research Group, Inc., to develop and test AquaQAPP (online QAPP-generating program for citizen monitoring groups) and facilitate data upload to EPA data management and archive systems.
- o October 29, attended STAC meeting.
- October 17, convened Regional Coordinators, drafted activities for the CCMP, and developed outreach materials to prepare for Local Governance Committee review of the draft CCMP.
- o December 3 & 17, organized and attended kick-off meetings for the Exchange Network Grant project with EPA, DEP, and ERG.
- o January 10, began weekly check-in meetings with ERG toward our deadline for a beta-tested AquaQAPP by June 30.

• State collaboration

- October 26 & January 31, joined the Coastal Advisory Group to The Trustees of the Reservations' coastal program; met with the group and provided comment on their Coastal Plan.
- November 13, attended MWRA's Outfall Monitoring Science Advisory Panel Forum, "2300 Days
 at Sea: Monitoring the Impacts of the Massachusetts Bay Outfall." MassBays was acknowledged
 as a partner in launching MWRA's efforts to clean up Boston Harbor, as well as our role in
 supporting science- and data-based management in the Bay.
- December 10, met with new MassDOT MassBays representative and other MassDOT staff to explore intersecting concerns and initiatives.

 Joined a meeting of state agency staff and program partners to scope out needs for state support to a new, multi-faceted Great Marsh project funded by a National Fish and Wildlife Foundation grant.

Regional Collaboration

- Assisted in finalizing the program for, and attended the 2018 Ocean Literacy Summit (November 15-16) hosted by NEOSEC.
- December 5-6, participated in NERACOOS Board meeting and Annual Meeting. MassBays' work
 with SeaTrac was highlighted by the start-up tech company in a presentation at the Annual
 Meeting.

National Estuary Program Coordination

- o Participated in three conference calls with EPA to plan the annual Spring NEP-EPA meeting.
- Led additional NEP calls to continue progress on program planning while EPA staff were furloughed.
- Facilitated two calls to discuss ANEP dues issues, including implications of non-payment for individual NEPs (of which MassBays is one).

Prassede Vella, Staff Scientist

- Science and Technical Advisory Committee: STAC met November 29 to discuss the final draft of the MassBays Monitoring Plan Framework. STAC approved the document to be presented to the Management Committee December 19. The Management Committee approved the plan for submission to EPA as a companion document to the CCMP.
- Research projects (1) Water Residence Time: The staff scientist has been working with members of STAC to move forward with the project on water residence time. Woods Hole Group is the contracted consultant and a scope of work has been developed. WHG are set to deliver a draft report in March. The data will be used by Northeastern University to rerun the categorization of embayments using additional data. (2) Coastal Acidification Project: Work is moving forward in Duxbury Harbor to prepare for deployment of the coastal acidification observing system in the coming weeks to start generating data soon.
- **Biological Condition Gradient**: Staff Scientist continuing to work with EPA on development of a BCG framework of MassBays. MassBays contracted with Urban Harbors Institute to conduct a research and assessment of historical data pertaining to parameters used in the EDA 2.0 that will help MassBays develop target conditions and be used to develop and implement the BCG.
- **Eelgrass mapping in DKP**: (1) MassBays staff scientist and South Shore RC together with DMF continued to work on the case of the loss of eelgrass in DKP. Following the eelgrass monitoring blitz in August, data have been analyzed and a final report and protocol developed for submission to EPA. (2) The team is currently working to continue monitoring this summer, repeating the eelgrass blitz and conducting water quality monitoring with SeaTrac. Plans are underway.
- Water Quality Monitoring (Real-time/Continuous): MassBays staff scientist and Lower North Shore RC have been working with CZM (Todd Callaghan), Salem State University (Brad Hubeny), SeaTrac, and ACASAK (Ben Wetherill) to develop a plan to conduct continuous water quality monitoring in Salem Sound to analyze conditions near wastewater and similar discharges. Several options are being explored and project discussed with STAC once more info is available.